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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/815,051      | 03/31/2004  | James Gregory Ryan   | 764164605070(002)   | 7960             |

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Lorri W. Cooper, Esq.  
Jones Day  
North Point  
901 Lakeside Avenue  
Cleveland, OH 44114

EXAMINER

SWERDLOW, DANIEL

ART UNIT PAPER NUMBER

2615

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/815,051 | <b>Applicant(s)</b><br>RYAN, JAMES GREGORY |  |
|                              | <b>Examiner</b><br>Daniel Swerdlow   | <b>Art Unit</b><br>2615                    |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004 and 10 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-17 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 18 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 1 through 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse by Ms. Lorri W. Cooper, reg. no. 40,038 by telephone on 21 April 2006.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 20 through 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hueber (US Patent 4,790,019).

4. Regarding Claim 20, Hueber discloses a remote control (Fig. 1) that controls a hearing aid system comprising a hearing aid that corresponds to the hearing instrument claimed (Fig. 7) by: emitting a control signal from remote sound wave control signal emitter (i.e., generating a remote acoustical pulse) (Figs. 1, 1a, 1b; column 2, lines 65-66; column 3, lines 11-14); receiving the control sound signal (i.e., acoustical pulse) through the microphone (12) of the hearing aid that corresponds to the hearing instrument claimed (column 4, lines 37-38); differentiating the pulse type in a detector (20) and determining a sound level bit pattern in a counter (26) and memory (27) (i.e., decoding the acoustical pulse in a program of the hearing

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instrument) (column 6, lines 16-21); and controlling the amplification of the hearing aid that corresponds to the hearing instrument claimed based on the memory output (i.e., the decoded acoustical pulse) (column 6, lines 21-25).

5. Regarding Claim 21, Hueber further discloses a detector (20) counter (26) and memory (27) arrangement that corresponds to the decoding circuit or software claimed.

6. Regarding Claim 22, Hueber further discloses a high-pass filter (14), a rectifier (19) and a detector (20) that distinguishes continuous and pulsating input signals (i.e., low-pass filters the acoustical pulses into base band pulses and determines the time spacing of the base band pulses to verify a pattern associated with a command) (column 4, lines 37-50).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13 through 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hueber in view of Benford (US patent 3,628,499).

9. Regarding Claim 13, Hueber discloses a hearing aid system comprising: a hearing aid that corresponds to the hearing instrument claimed (Fig. 7) and has a microphone (12) and a counter and memory configuration (26, 27) that corresponds to the programming claimed (column 6, lines 21-25); and a remote control (Fig. 1) comprising a pocket carried structural unit that corresponds to the housing claimed (column 1, lines 59-63) and a circuit (Fig. 1) for

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generating an acoustical pulse (Figs 1a, 1b) for controlling the hearing aid; wherein the counter and memory configuration (26, 27) that corresponds to the programming claimed interprets the pulses to control the hearing aid (column 4, lines 37-64; column 6, lines 16-25). Therefore, Hueber anticipates all elements of Claim 13 except mechanical generation of the acoustic pulses. Benford discloses an acoustical signal generator (Fig. 1) that mechanically produces timed acoustical pulses of a particular frequency (column 3, lines 63-66). Benford further discloses that such an arrangement provides for operation without electric power, inexpensive production and convenience in carrying (abstract). It would have been obvious to one skilled in the art at the time of the invention to apply the mechanical controller taught by Benford to the hearing aid system taught by Hueber for the purpose of realizing the aforesaid advantages.

10. Claim 14 is essentially similar to Claim 13 and is rejected on the same grounds.

11. Regarding Claim 15, Hueber further discloses a detector (20) counter (26) and memory (27) arrangement that corresponds to the decoding circuit or software claimed.

12. Regarding Claim 16, Hueber further discloses a high-pass filter (14), a rectifier (19) and a detector (20) that corresponds to the low-pass filter claimed and distinguishes continuous and pulsating input signals (i.e., transforms the acoustical pulses into base band pulses and measures the time spacing of the pulses to verify a pattern associated with a command) (column 4, lines 37-50).

13. Regarding Claim 17, Hueber further discloses, in another embodiment, preventing adjustment of the sound level (i.e., disabling the decoding circuit) when no control signal is delivered (column 6, lines 63-67). One skilled in the art would have known that such an arrangement prevents unwanted changes in sound level. It would have been obvious to one

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skilled in the art at the time of the invention to apply decoder disabling as taught by Hueber to the combination made obvious by Hueber and Benford for the purpose of realizing the aforesaid advantage.

14. Regarding Claim 19, Hueber further discloses the hearing aid that corresponds to the hearing instrument claimed (Fig. 7) and has a microphone (12) that receives the control sound signal (i.e., accepts the acoustical pulses) (column 4, lines 37-38).

***Allowable Subject Matter***

15. Claims 18 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Regarding Claim 18, as shown above apropos of Claim 17, the combination of Hueber and Benford makes obvious all elements except disabling the decoding based on a determination of a pulse-to-noise ratio exceeding a predetermined threshold. Hueber discloses disabling when there is no difference between the outputs indicating control signal states (i.e., both states are simultaneously present). While this condition could be generally indicative of a high noise condition, it does not determine whether pulse-to-noise ratio exceeds a predetermined threshold. As such, there is no teaching or suggestion in the prior art or in the knowledge of one of ordinary skill in the art to disable the decoding based on a determination of a pulse-to-noise ratio exceeding a predetermined threshold and the claim is allowable matter.

17. Claim 23 contains limitations similar to those of Claim 18 and is allowable matter for the same reasons.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615

ds  
25 April 2006